

**Patent** [19]

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## [54] BLOWBY GAS PURIFIER

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## [57] ABSTRACT

**PROBLEM TO BE SOLVED:** To effectively purify blowby gas by providing a filter carrying a photocatalyst, catching an oil constituent contained in blowby gas and a light source lamp exciting the photocatalyst in the middle of an exhaust pipe.

**SOLUTION:** A filter 11, arranged on the blowby gas downstream side in a purifier 6, is formed into a truncated cone shape, as seen in cross-sectional view vertical to the center axis of the cone, the filter 11 is arranged with its larger circular area end part and its smaller circular area end part arranged respectively toward the upstream side and the downstream side of the flow. On the upstream side of the filter 11, a light source lamp 12 for irradiating ultraviolet rays for exciting a photocatalyst applied to the filter surface is arranged inside a light source lamp installation part 14. The light source lamp installation part 14 is formed into a cylindrical shape for mounting the light source lamp 12 in the center, and the radiation side end part is extended in the gas flow direction, while being narrowed slightly. Oil portion caught in the filter 11 is decomposed into water and carbon dioxide and is discharged to the atmosphere from an exhaust port.

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